

156809

Wednesday, February 08, 2017 9:10:14 AM

N900040100

Setup Start *NS1*

Stop *NS2*

40

Cust Item ID:

Start Date: 2/1/2017 **Start Qty:** 40.00

Required Date: 2/8/2017 **Req'd Qty:** 40.00

40

Customer:

Reference:

Approvals:

Process Plan:

Date: FEB 09 2017

Tooling:

Date:

Run Start *NR1*

QC:

Date:**SPC (Y/N):**

Date:

Stop *NR2*

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

Work Order ID 156809***156809***

Page 2

Wednesday, February 08, 2017 9:10:14 AM

Item ID: D3065-5

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Step Leg

Start Date: 2/1/2017

Start Qty: 40.00

40

Cust Item ID:

Required Date: 2/8/2017

Req'd Qty: 40.00

40

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.13

Quality Control

40

MAR 02 2017

130

Chemical Conversion Coat per QSI005 4.1

0.00

130

HandFinish

Memo

0.13

Hand Finishing

x40

2017/03/13

BEB

140

QC7-Inspect Chemical Conversion Coat

0.00

140

QC

Memo

0.07

Quality Control

40

MAR 14 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
☐ Environment	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
☐ Design	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
☐ Doc/Data	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
☐ Equip/Tooling	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
☐ Handling/Pre	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
☐ Material	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
☐ Internal Transport	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
☐ Tribal Knowledge	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
☐ LOA	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
☐ Substation	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
☐ Past Expiry Date	☐ Manufacturing Process	OTHER : _____					
☐ Misidentified	☐ Past Due						

Work Order ID 156809

Wednesday, February 08, 2017 9:10:14 AM

156809

Page 3

Item ID: D3065-5

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Step Leg

Start Date: 2/1/2017

Start Qty: 40.00

40

Cust Item ID:

Required Date: 2/8/2017

Req'd Qty: 40.00

40

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

Identify as per dwg & Stock Location: **GA**

0.00

150

Packaging

Memo

0.07

Packaging

LOCATION : GA

40X. **DAS**
26
9-89

MAR 14 2017

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.67

Quality Control

17/3/15 **AS****DAS**
21
9-89

MAR 14 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

Wednesday, February 08, 2017 9:10:14 AM

Page 1

Work Order ID: 156809

156809

Parent Item: D3065-5

D3065-5

Parent Item Name: Step Leg

Start Date: 2/1/2017

Required Date: 2/8/2017

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP: C02.11.01 Incorporated D3066-1 IPPKJ/RF
IPP Rev:D Now on Water Jet 06-04-11 JLM
IPP Rev:E Now manufactured with 6061-T6 06-05-25 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6S.080

Purchased

No

100

sf

295.8500

0.825

34.73684

DAS

46
9-89

10/17/02/25

M6061T6S 080

6061-T6 .080 Sheet

**

Location

Loc Qty

Loc Code

MAT020

295.85

m135861

11.8

m136342

92.05

m136632

192

32

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

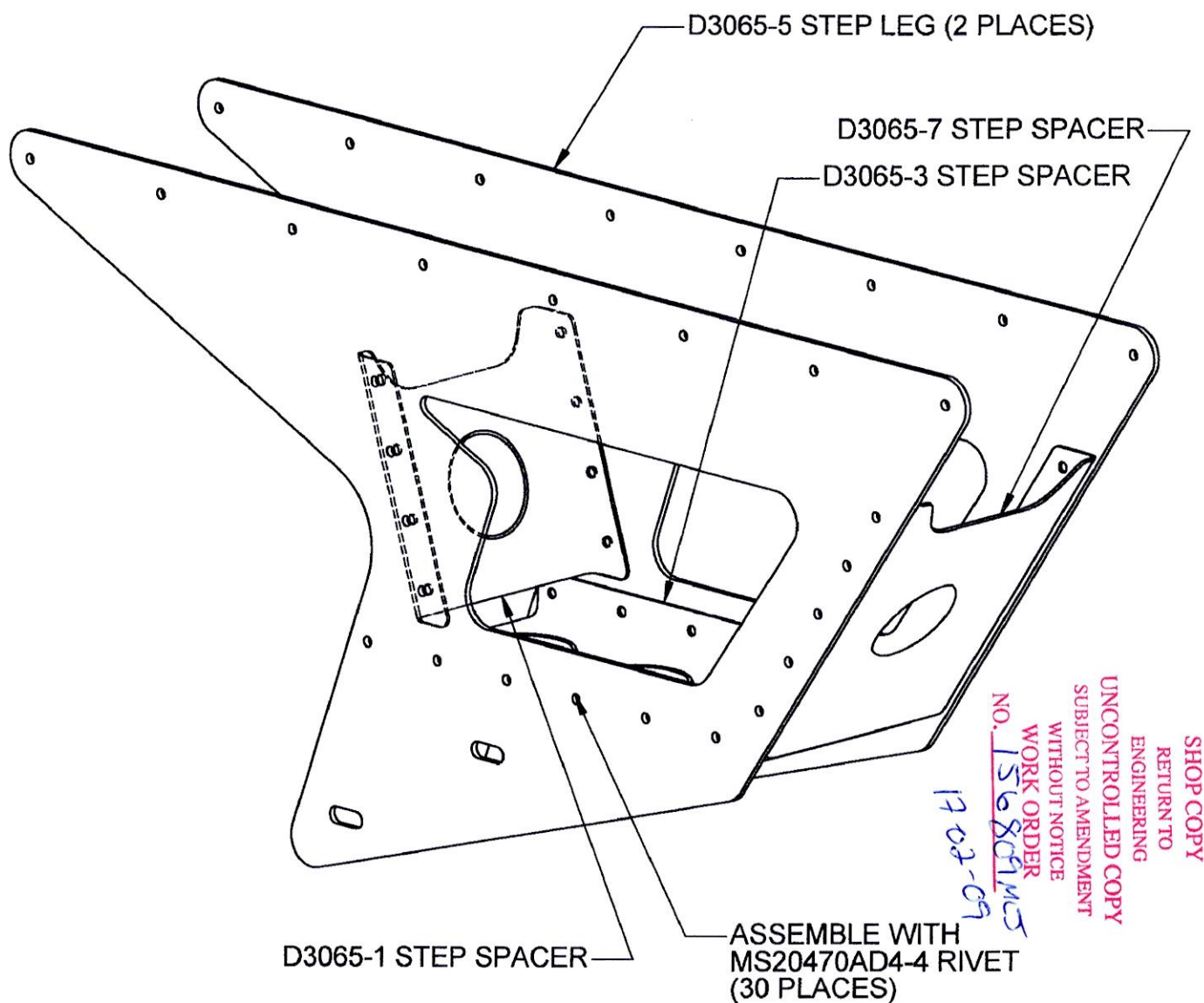
Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						



DESIGN <i>CP</i>	DRAWN BY <i>CB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3065	REV. B SHEET 1 OF 5
DATE 06.05.23		TITLE STEP LEG ASSEMBLY	SCALE 1:2
A	02.09.11	NEW ISSUE	
B	06.05.23	ADD 6061-T6 MATERIAL, ADD SLOTS TO D3065-5	

RELEASED

06.06.20 *[Signature]*

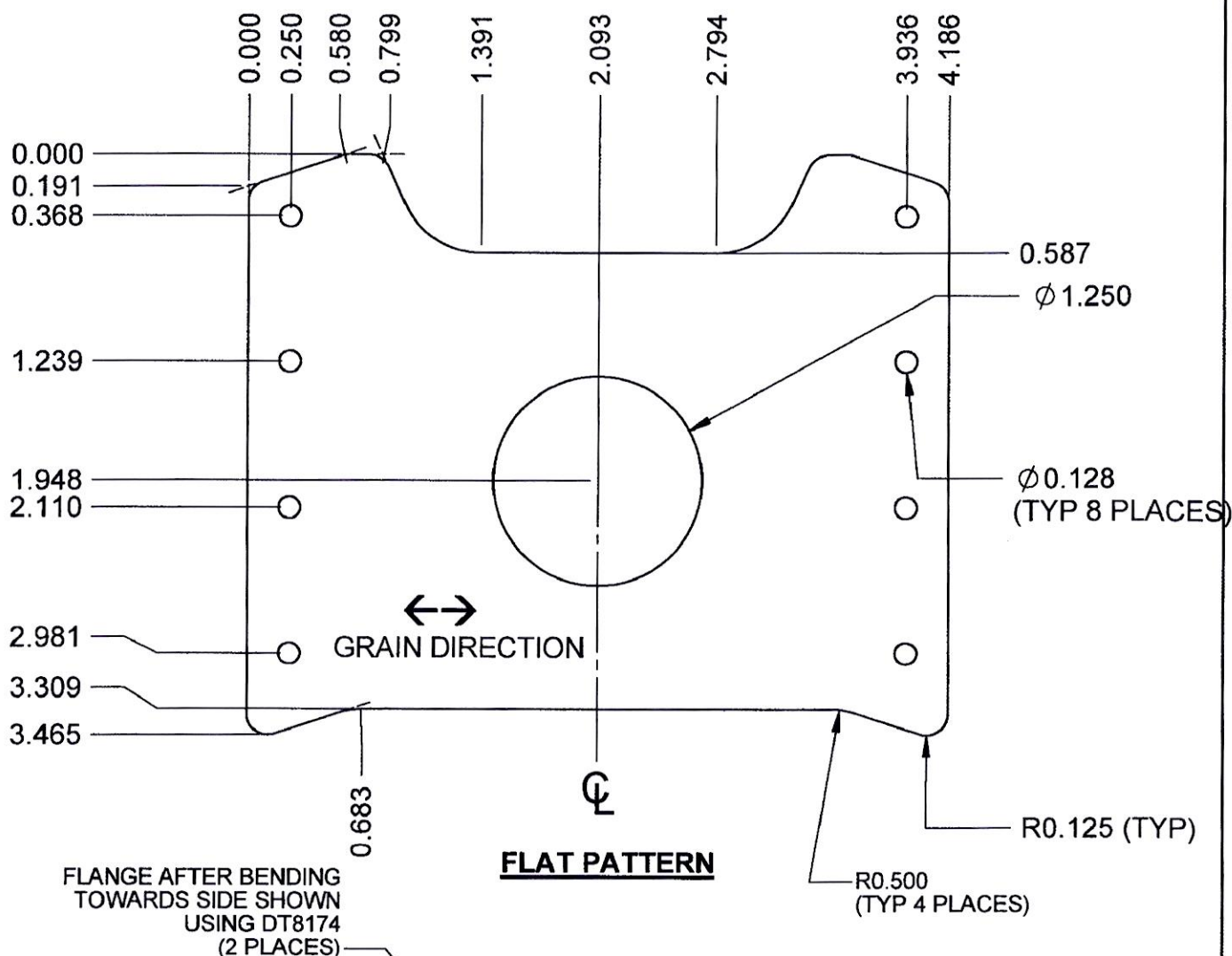


D3065-041 STEP LEG ASSEMBLY

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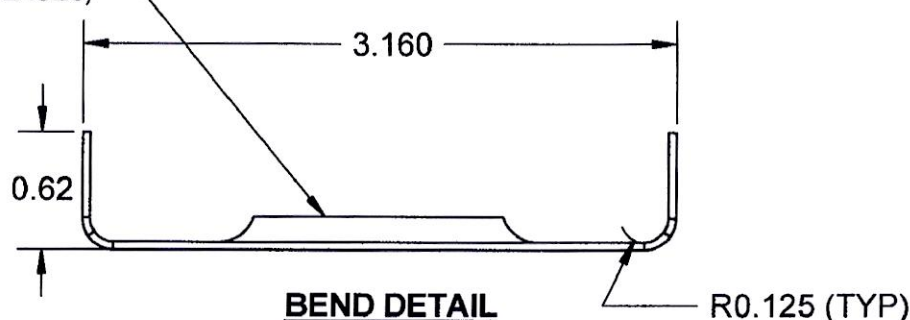
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CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3065	REV. B SHEET 2 OF 5
DATE 06.05.23		TITLE STEP LEG ASSEMBLY SCALE 1:1	



RELEASED

de de re #



D3065-1 STEP SPACER

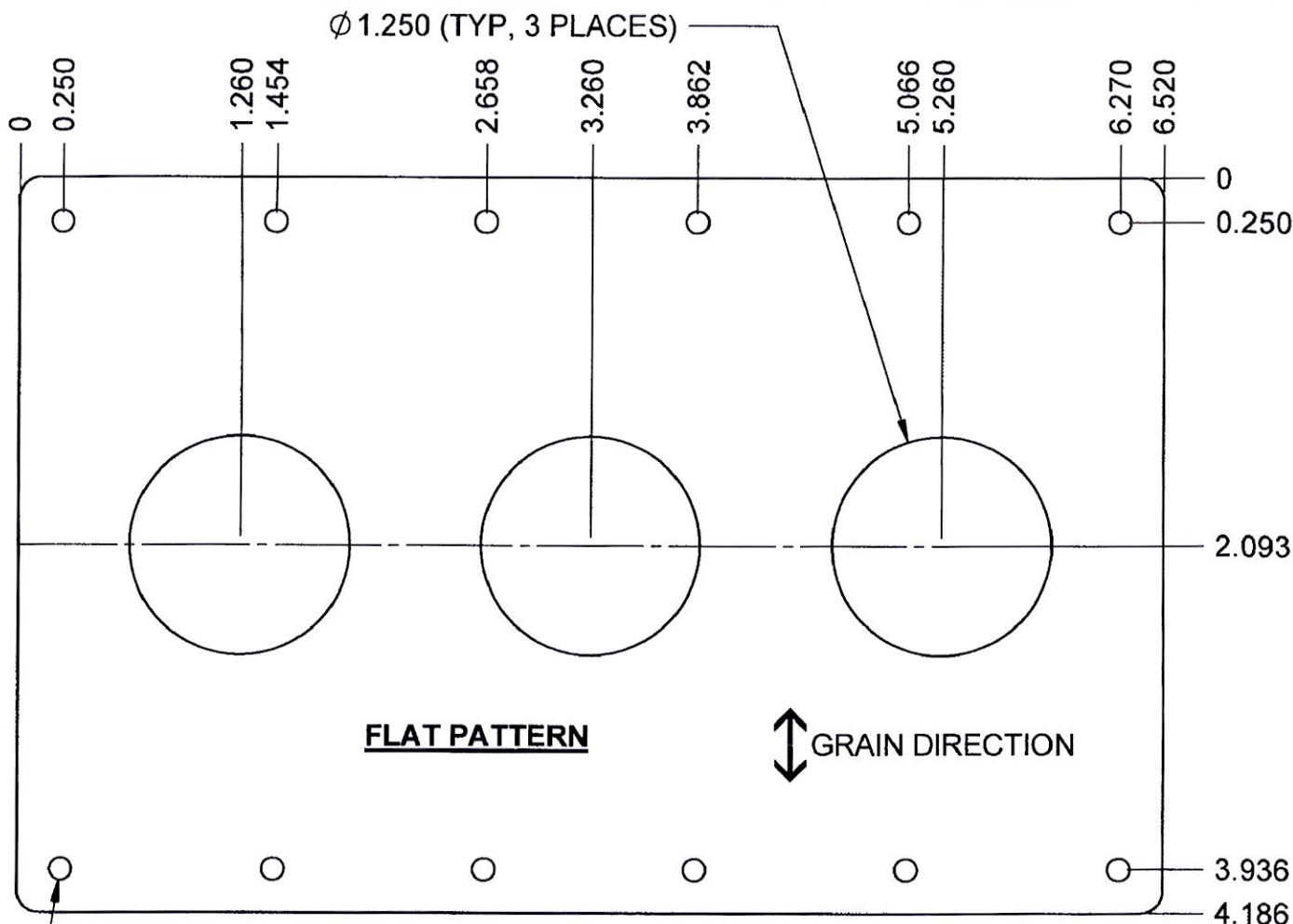
- 1) MATERIAL: 2024-T3 (QQ-A-250/4) 0.040 THICK (REF DART SPEC. M2024T3S.040)
2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
3) BREAK ALL SHARP EDGES 0.005 TO 0.010
4) PART IS SYMMETRIC ABOUT CENTERLINE
5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
6) ALL DIMENSIONS ARE IN INCHES

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CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3065	REV. B
DATE 06.05.23		TITLE STEP LEG ASSEMBLY	SHEET 3 OF 5 SCALE 1:1

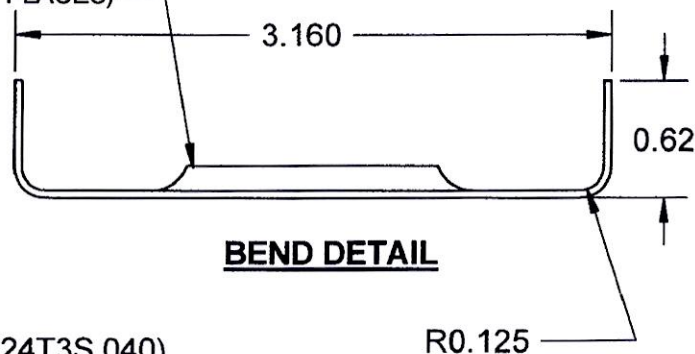


FLANGE AFTER TOWARDS SIDE
SHOWN USING DT8174 (3 PLACES)

Ø 0.129 (TYP, 12 PLACES)

RELEASED

06.05.23 *[Signature]*



BEND DETAIL

D3065-3 STEP SPACER

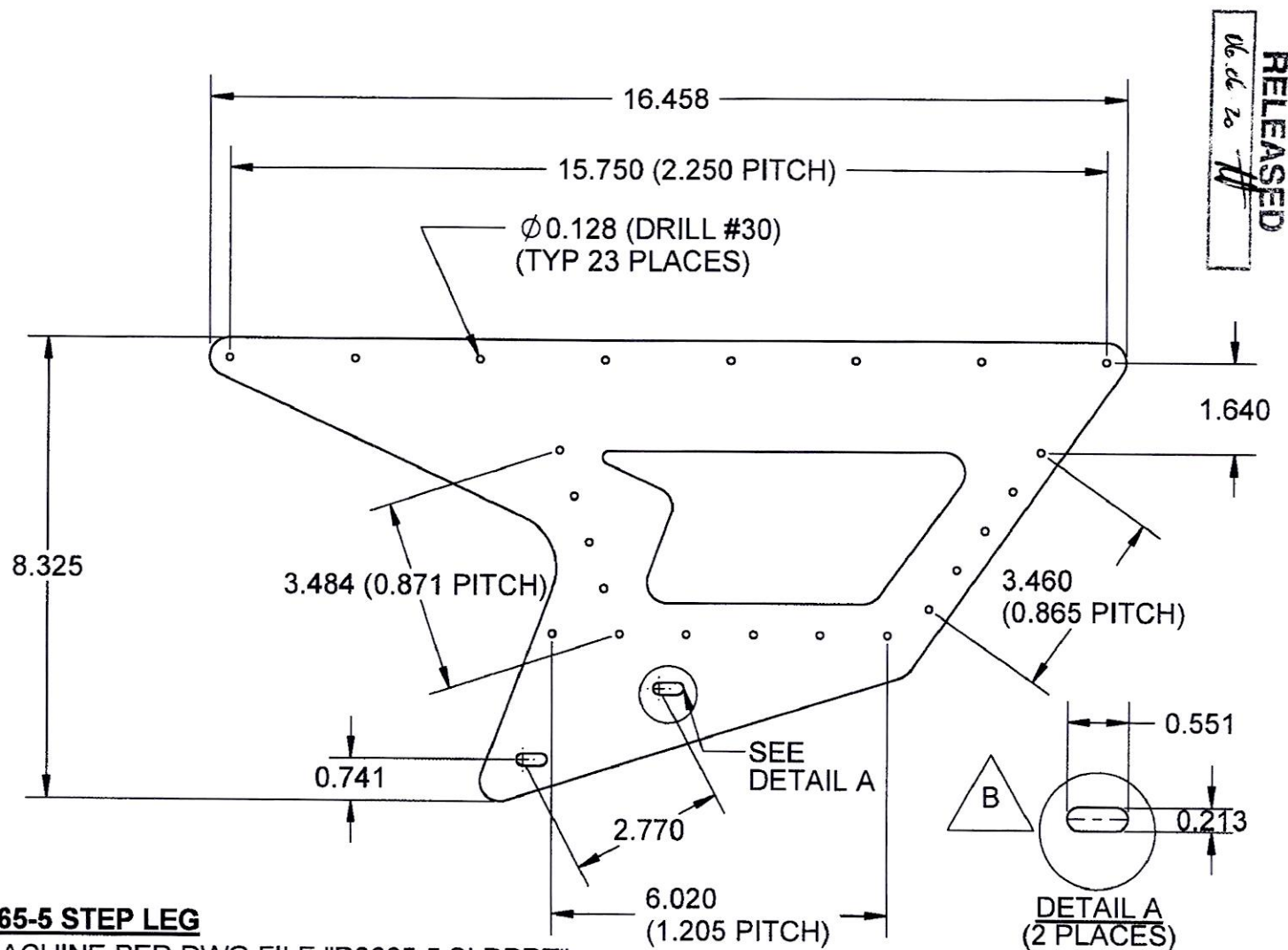
- 1) MATERIAL: 2024-T3 (QQ-A-250/4)
0.040 THICK (REF DART SPEC. M2024T3S.040)
- 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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DART

DESIGN	DRAWN BY	DART AEROSPACE LTD
CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	06.05.23	DRAWING NO. D3065
		TITLE STEP LEG ASSEMBLY
		REV. B
		SHEET 4 OF 5
		SCALE 1:3



D3065-5 STEP LEG

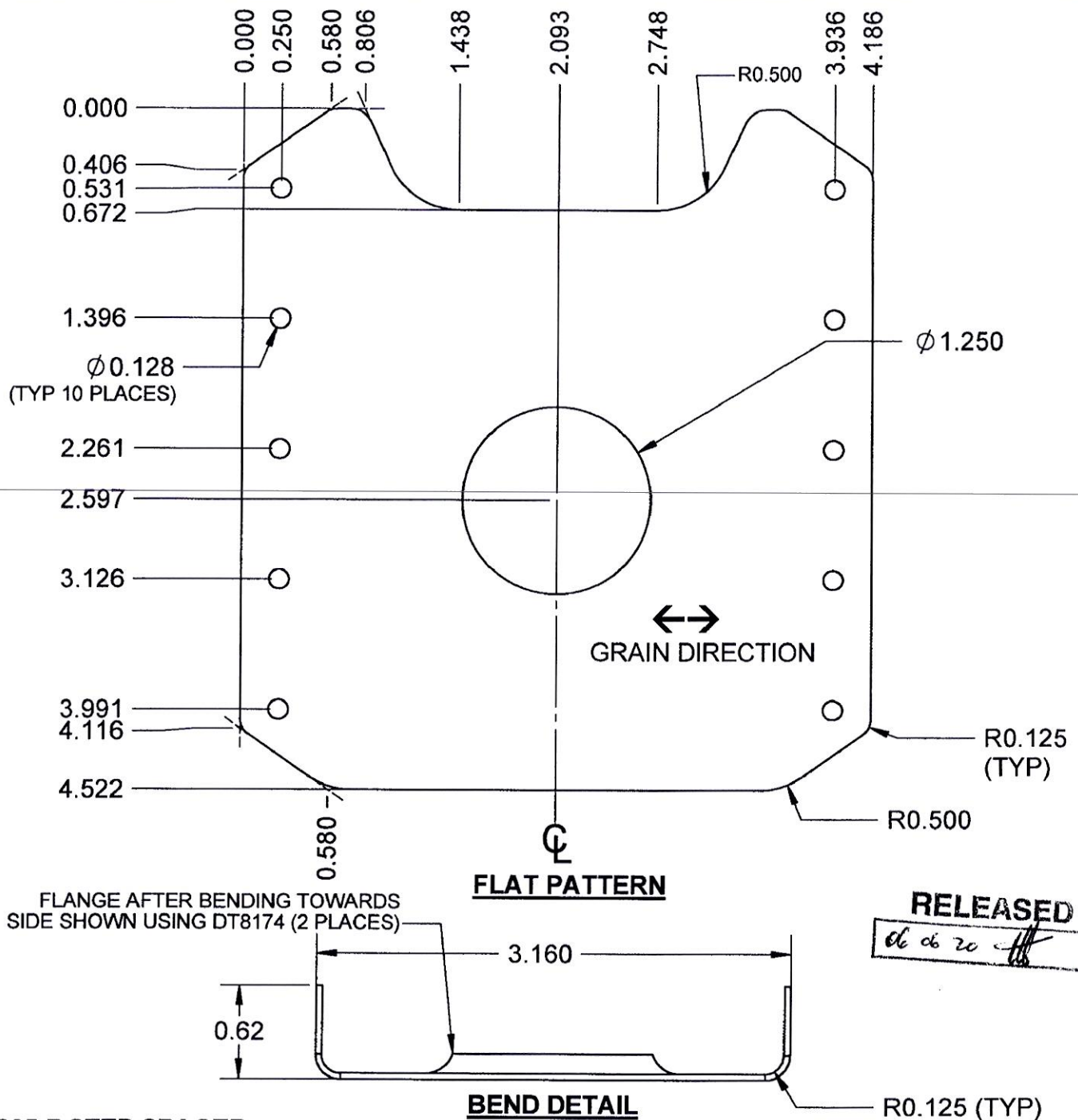
- 1) MACHINE PER DWG FILE "D3065-5.SLDPRT"
- 2) MATERIAL: 6061-T6 (PER QQ-A-250/11 OR AMS 4025 OR AMS 4027) 0.080" THICK
(REF DART SPEC M6061T6S.080)
OR
5052-H32 (PER QQ-A-250/8 OR AMS 4016) 0.080 THICK (REF DART SPEC. M5052H32S.080)
- 3) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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CHECKED <i>PH</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3065	REV. B SHEET 5 OF 5
DATE 06.05.23		TITLE STEP LEG ASSEMBLY	SCALE 1:1



D3065-7 STEP SPACER

- 1) MATERIAL: 2024-T3 (PER QQ-A-250/4) 0.040 THICK (REF DART SPEC. M2024T3S.040)
- 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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